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ABSTRACT

Ideas in ten books which marked turning points in American educational directions are analyzed. William H. McGuffey's "Readers" (1836-44) set the moral and inspirational tone that still exists in American education, though now lessened and mainly in small-town America. "Medical Education in the United States and Canada" (Flexner, 1910) reflected the need for upgrading and regulation of professional education by the professions and government. "The Measurement of Intelligence" (Terman, 1916) offered testing to aid school guidance, though recent critics denounce its bias against minorities and its sorting function. "Democracy and Education" (Dewey, 1916) urged a liberal education reformation of America, especially among the lower class, through a child-centered progressive philosophy of education. "Dare the Schools Build a New Social Order?" (Counts, 1932) asked during the Depression a question which President Johnson in the mid 1960s tried to answer with mixed success. The Harvard Report "General Education in a Free Society," 1945, tried to restore the liberal arts in a time of egalitarian vocationalism. "The Process of Education (Bruner, 1960) urged the restoration of math, biology, and physics, ostensibly for the majority but in practice for the gifted. "Equality of Educational Opportunity" (Coleman, 1966) was the nation's 10-year report on school desegregation. "The Irony of Early School Reform" (Katz, 1968) was the first of several radical revisionist interpretations of U.S. educational history. "Beyond Freedom and Dignity" (Skinner, 1971) justified manipulation and control of U.S. schools and society. (Author/KC)

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Turning Points: Ideas in Books Affecting American Education

By Franklin Parker

What books most reflect major turning points in recent American education? The book choices that follow uniquely reflected the mood or asked pertinent questions about American schools.

The McGuffey Readers, published earlier and in a series rather than one volume, set the moral and inspirational tone that still persists in American education, though now lessened and mainly in smalltown America.

Abraham Flexner, Medical Education in the United States and Canada: A Report to the Carnegie Foundation for the Advancement of Teaching (New York: Carnegie Foundation, 1910), reflected the rising importance of professional education and the need for upgrading and regulation by the professions and government.

Lewis M. Terman, The Measurement of Intelligence (Boston: Houghton Mifflin, 1916), came in the aftermath of the factory efficiency movement and the immigrant influx to promote testing in aid of school guidance, though recent critics denounce testing bias against minorities and its sifting and sorting function.

Also that year, affirming America's coming of age as an industrial democracy and world power, John Dewey, Democracy and Education (New York: Macmillan Co., 1916) urged a liberal educational reformation of America, especially among the lower and underclass, through a gentler, Rousseauian, child-centered, Progressive philosophy of education.

George S. Counts, Dare the Schools Build a New Social Order? (New York: John Day Co., 1932), written during the Great Depression, asked a question which Pres. L. B. Johnson in the mid 1960s tried to answer with mixed success.

As World War II veterans swarmed into higher education, the Harvard Report, General Education in a Free Society (Cambridge, MA: Harvard University Press, 1945), tried to restore the liberal arts whose elitism and rationalism were suspect in a time of egalitarian vocationalism.

Jerome S. Bruner, The Process of Education (Cambridge, MA: Harvard University Press, 1960), urged the restoration of subject matter, particularly math, biology, and physics, ostensibly for the majority but in practice for the gifted minority.

James S. Coleman, Equality of Educational Opportunity (Washington, DC: Government Printing Office, 1966), saw hope in the self-esteem and upward mobility blacks and Puerto Ricans seemed to catch from middle class whites in mixed schools.

Michael B. Katz, The Irony of Early School Reform: Educational Innovation in Mid-Nineteenth Century Massachusetts (Boston: Beacon Press, 1968), Vietnam-era radical interpretation of American education history, charged the Establishmeent (i.e., capitalists) with using schools to perpetuate the status quo and to provide exploitable low-paid workers.

B. F. Skinner, Beyond Freedom and Dignity (New York: Alfred A. Knopf, 1971), disturbed many Americans by justifying manipulation and control of American society.

These ten books, seen in their time and in retrospect, shook and shaped American schools.

McGUFFEY

Philosophy Prof. William H. McGuffey (1800-73), Miami University, Oxford, Ohio, was not the first choice of Truman and Smith, Cincinnati publishers, who in 1835 invited Catharine E. Beecher to write a set of readers. Busy as head of the Western Female Institute, Cincinnati, Beecher declined and recommended Prof. McGuffey, a member of Cincinnati's prestigious Western Literary Institute who had published an article on reading methods.

The First Reader, with an illustrated alphabet, and the Second Reader came out in 1836. The Third Reader, containing short stories, and the Fourth Reader, with lessons in natural history and physics, appeared in 1837. McGuffey's younger brother Alexander produced a Speller and a Rhetorical Guide in 1844, the latter expanded into the Fifth and Sixth Readers, which included selections from classical literature.

McGuffey's aim was to teach spelling, pronunciation, and English langua usage through stories of everyday farm life, stories that stressed character, work, and respect for learning. The content, suitable for all tastes and ages, encouraged parents to study along with their children.

The last two Readers, without concession to immaturity, took for granted that young readers would understand the material or that teachers and parents would explain it. The Readers reflected the belief that education was first moral and then intellectual. Sentimental about children, dogs, horses, flowers, trees, and family life, they also reflected a puritanical Protestant Christianity and simple rewards and punishments; virtue led to riches, and wickedness was detected and punished. No one questioned the Bible or its relevance to everyday life. Industry, sobriety, thrift, modesty, punctuality, and conformity assured success in life and work. Failure was the consequence of laziness.

Later editions continued the frank patriotism, reverence for the Pilgrim Fathers, struggle for union, and national Manifest Destiny. The themes, eagerly absorbed, did for rural America what the Horatio Alger books were to do for slightly later urban America. The Readers gave late 19th and early 20th century schoolchildren a common frame of reference, a sense of shared experience, and helped shape American character. Always popular, their resurgence since the 1950s reflects the Essentialist, Basic Education, and 3R influences--and also a nostalgia for a simpler past with its common experiences and national pride.

FLEXNER

Flexner's 1910 report on medical education not only significantly upgraded U.S. medical schools but was also a model for improving other academic fields and professions.

Abraham Flexner (1866-1959) attended the then relatively new Johns Hopkins University in Baltimore, first U.S. graduate university. A Louisville, Ky., high school teacher, 1886-90, he later ran a private school and tutored students for Ivy League colleges.

Restless, he quit teaching in 1905 and studied at Harvard; then studied under his physician brother Simon Flexner at New York's Rockefeller Institute for Medical Research; then went to Germany, where he wrote The American College: A Criticism, 1908, critical of college education as he observed it at Harvard.

The book impressed Pres. Henry S. Pritchett of the newly founded (1905) Carnegie Foundation for the Advancement of Teaching. Pritchett had backed the high school Carnegie unit, pioneered a professors' retirement plan (now TIAA), and planned to investigate professional education in medicine, dentistry, and engineering. Believing the American Medical Association's Council on Medical Education to be overly tactful with medical colleagues, Pritchett wanted an objective, critical, nonmedical investigator. He asked Flexner to study medical education.

Using Johns Hopkins Medical School as a model, Flexner studied 154 medical schools in the U.S. and Canada, their entrance requirements, finance, endowment, fees, laboratory and clinical equipment and procedures, relations with hospitals, medical student access to hospitals, physicians and surgeons' terms of appointment, and other factors. His reports, sent to Pritchett, were forwarded to heads of the investigated medical schools before publication. Never before had medical school practice been so thoroughly aired.

Flexner's 1910 Report helped revolutionize medical education. State

boards of medical examiners accepted and the press publicized the Report's findings. Diploma mill schools folded; weak schools merged; seven in Louisville become one, and fifteen in Chicago consolidated into three.

Flexner studied European medical education, became assistant secretary to Rockefeller's General Education Board, conducted large city and state school surveys, created the Lincoln School (later Horace Mann-Lincoln School) as a model practice school of Columbia University's Teachers College; and was originator and first director (1930) of the Institute for Advanced Studies at Princeton, whose first professor, Albert Einstein, he brought permanently to the U.S.

TERMAN

Terman's The Measurement of Intelligence, 1916, launched the IQ and testing movement, IQ and race controversy, and offers background to anti-testing sentiment. Forerunners were Charles Darwin, whose Origin of Species, 1859, suggested the primacy of inherited characteristics; Francis Galton, whose Hereditary Genius, 1869, noted that intelligence ran in families; and American psychologist James M. Cattell, who in 1890 coined the phrase "mental test."

Psychologist Alfred Binet, asked by the French government to help identify retarded children, devised with Theodore Simon in 1905 questions that classified children by their abilities. Although Binet-Simon's revised 1908 scales were first published in English by others, Terman's 1916 book contained the most thorough Stanford-Binet revision; his 1937 and 1960 versions were the most widely used U.S. intelligence test.

Observers say that Terman, H.H. Goddard, Edward L. Thorndike, and other early U.S. test makers lent credence to eugenics, or the fostering of desirable inherited traits. Their theories and tests were said to support sterilization of the mentally and socially handicapped (between 1907-28, 21 states practiced eugenical sterilization involving over 8,500 people).

The Progressive Education Association's Eight-Year Study (1932-40) agreeably found that students educated in "progressive" schools did as well as or better than traditionally educated students. It encouraged educational measurement, as did the testing of millions of World War II veterans. The Educational Testing Service (1948) and similar organizations arose to meet the testing needs of the Cold War, the postwar baby boom, and the rapid growth of higher education.

Michael Harrington's The Other America: Poverty in the United States, 1960, helped explain to John F. Kennedy the poverty he saw in his West Virginia primary campaign. Though moved to fight it, he failed to get bills through Congress. His successor, Pres. Johnson, pushed through remarkable education bills, including Project Headstart, Follow Through, and the Elementary and Secondary Education Act of 1965. But the Vietnam War drained the treasury; its backlash ousted LBJ and indirectly elected Richard Nixon.

Casting doubt on the concept of compensatory education and hoping to scuttle Great Society education programs, Nixon's advisers pointed to University of California at Berkeley Psychology Prof. Arthur R. Jensen's claim that heredity was 80% and environment 20% of children's intelligence.

In claiming that blacks did worse than whites on intelligence tests, Jensen was joined by Stanford University Nobel Laureate physicist William B. Shockley; London University psychologist Hans Jurgen Eysenck, under whom Jensen studied; and Harvard psychologist Richard J. Hernnstein. They were backed by biological determinists and popular writers Robert Ardrey (Territorial Imperative, 1966), Desmond Morris (Naked Ape, 1968), and Lionel Tiger and Robin Fox (Imperial Animal, 1970). Harvard's Christopher Jencks, in Inequality, 1972, dismissed compensatory schooling as useless, and cited luck and personality as more important than schooling in achieving success. The 1970s tension over court-ordered busing for integration heightened the heredity versus environment debate.

By the end of the 1970s, testing faced all-out frontal attack. Minority groups objected to published tests as unfair, and sympathetic teachers, parents, and school administrators induced the National Education Association (NEA) to call for a moratorium on testing. New York and other states passed "truth in testing" laws requiring testing companies to release scores, answers, and studies on tests' intent, interpretation, reliability, and validity. Anti-testers demanded that college entrance tests, such as the Scholastic Aptitude Test, be made less biased against minorities. Others, who abhor test distinctions and standards, attacked them as tools in the public schools' alleged capitalistic sorting function.

Then came Allan Nairn, et al., whose book (commissioned by consumer advocate Ralph Nader), The Reign of ETS, 1980, was NEA-backed. Pro-testers charge the NEA, whose business is teacher power, with attacking standarized testing because its use might challenge the competence of NEA's 1.8 million teachers. They also charge that Nader, who abhors U.S. corporate power, had opened a new front in his old war.

Terman's 1916 book, then, was part of the old nature-nurture, heredity-environment controversy; an old Jefferson-Jackson elite-commoner conflict. The unanswered question is: Can mass education have consistent quality?

DEWEY

John Dewey (1859-1952) said yes to this question in Democracy and Education, 1916, and in other educational writings. Romantic Rousseauian liberals, looking for a champion, found one in Dewey. With him as sage, Progressive Education as a rallying call, and Traditional Education as straw man--the child became the focus and democratic education the instrumental promise of continuous social improvement.

His 1916 book appeared some 25 years after the U.S. changed from pre-1890 rural-agrarian simplicity to urban industrial complexity; a year before U.S.

military intervention and industrial might helped end the 1914-18 European war, marking the U.S. as a world power; and 3 years before the founding in Washington, D.C., of the Progressive Education Association (1919).

He was born the year Charles Darwin published Origin of Species and oil was discovered in Pennsylvania (both were consequential: Dewey embraced Darwinian evolution and adaptation to change; and he worked out his educational ideas at the Laboratory School, University of Chicago, endowed by oil-rich John D. Rockefeller). Dewey had an ordinary upbringing in Burlington, Vt., where at the state university, he was encouraged to make philosophy a life work. He then studied psychology at Johns Hopkins University under G. Stanley Hall and philosophy under Charles S. Peirce (both of whose ideas influenced him) and Hegelian Idealism under George S. Morris. On graduation (1884) he taught at the University of Michigan, 1884-94, where he wrote his first book, Psychology, 1887, and where, helping the University accredit Michigan high schools, he became familiar with public school problems. In 1894 he joined Pres. William R. Harper at the newly opened (1892) University of Chicago as head of the combined Department of Philosophy, Psychology, and Pedagogy.

Chicago in the 1890s had about a million people, two-third of them often exploited immigrants or the children of immigrants. Dewey worked with reform leaders Jane Addams, founder of Hull House, a model slum welfare center for poor immigrants, and Francis W. Parker, Cook County Normal School principal. Parker had at the University of Berlin embraced Rousseauian sensitivity for childhood education as practiced by famed European reformers Pestalozzi and Froebel. As superintendent Parker made the Quincy, Mass., schools a model progressive system and trained teachers in that spirit at Cook County Normal School. Dewey sent his children to Parker's school and later called Parker the founder of Progressive Education. Dewey backed Addams' Hull House efforts for better housing, parks, playgrounds, child labor laws, and other needs of immigrants and their children.

To provide practice for future teachers enrolled in his University of Chicago department, Dewey founded in 1896 an experimental Laboratory School. In Europe, Pestalozzi, Froebel, and others had established such experimental schools. In the U.S. Amos B. Alcott in Boston, Parker in Quincy, and others had organized such schools. What made the Dewey school different was Dewey's effort to explain in speeches and in books why, instead of conventional fixed seats and silent children, he had moveable furniture to encourage small and large group work; why, instead of teacher-dominated drill on set lessons from prescribed textbooks, he encouraged discussion, questions, and activities by children who shared a variety of toys, materials, and books. Observers did not at first grasp his concern to integrate and reconcile what educationally had always been kept separate: interest and effort, school and society, individualism and the group, the child and the curriculum.

After differences with Pres. Harper, Dewey resigned in May, 1904, accepting a post in Columbia University's Philosophy Department, where he taught for the rest of his distinguished career.

Influenced by Darwinian evolution and adjustment to change, Dewey believed that what we learn comes from experience (learning by doing), that the best experience is life as we must live it (education is life) in a democracy which requires cooperative living (education is a social process).

Having rejected eternal truths and fixed ends, Dewey held that education has no final end but the ongoing reconstruction (improvement) of human experience. The door of learning swings on the hinges of interest, so that interest and effort go together. So do the child and the curriculum, since the subject grows out of the child's needs and concerns. So do school and society, since the school should not be isolated as a place apart but must duplicate social arrangements and teach socially useful subjects, always toward social improvement.

These ideas from Democracy and Education were little noted at the time. Dewey's writing style was often difficult. But interpreters sprang up in teachers' colleges across the country, most prominently William H. Kilpatrick at Columbia University's Teachers College (Kilpatrick's "project method" of organizing a subject into manageable units which students could tackle alone or in a group at their own speed was a much publicized Progressive Education learning device), Boyd H. Bode at Ohio State University, and others.

The 1930s Depression, with its socio-economic experimentation, provided the setting for Progressive Education's notable influence in elementary schools (less in high schools, which were tied to college entrance; minor impact on higher education). Opposition came from religious absolutists; liberal arts advocates such as Robert M. Hutchins; the Essentialists, a group stressing the 3Rs and other basic subjects (the Council for Basic Education carries on the Essentialist viewpoint); and post World War II critics, such as historian Arthur E. Bestor, reflecting US-USSR Cold War concerns and post-Sputnik defense needs.

Although subject matter people dominated post-World War II America, Progressive Education concerns were briefly revived about 1965-72 by young radical teachers and sensitive writers: Jonathan Kozol, John Holt, James Herndon, Herbert Kohl, George Dennison, and others. Mainly slum school teachers, they cared about their minority students at the bottom of the pile, sought alternative ways to reach them, wrote poignantly of their experiences and regretfully of their failures. Dewey would have liked these compassionate critics, avant garde and concerned with the underclass, as he had been. He would have approved their use of Open Education, for he was above all experimental, using mind as an instrument to solve all problems.

COUNTS

Social reconstruction through schools was the challenge made by Education Prof. George S. Counts of Columbia University's Teachers College in his 1932

book, Dare the Schools Build a New Social Order?

The business boom burst in October 1929. By March 1932 eight million were unemployed. Tin-shack Hoovervilles, soup kitchens, and the jobless selling apples dotted the land. "Capitalism is on trial," wrote a leading educator, noting Italian and German fascism on the right, Russian communism on the left, and in the U.S. such extremists as Father Coughlin, the Silver Shirts, the Crusaders, and the National Watchmen.

Counts asked school leaders to go beyond transmitting culture, conserving values, and assuring social stability; beyond child-centeredness and adaptation to change. He asked educators and the public consciously to use schools to remake American society, to determine the direction it should go and then to indoctrinate in that direction in the public schools.

Would teachers organize to seize and wield power for social reconstruction? No, Counts sadly concluded. Teachers were too afraid, too inexperienced. They would follow but not lead in reconstruction. Governement, not educators, would build the great society.

Counts lived to see education-minded Pres. Johnson pass massive education bills to build the Great Society. But it was a short-lived attempt as the Vietnam nightmare took over and protesters manned barricades to bring down a governement mired in an unpopular war.

As a movement, Social Reconstruction in Education had little support even among Progressive educators and faced active hostility from Basic Education 3R traditionalists whose power, always considerable, rose after World War II. Social Reconstructionism faded with the deaths of advocates Harold O. Rugg, Counts (1889-1974), and the waning influence of Theodore Brameld. But Counts's question remains: How should schools serve a changing social order?

1945 HARVARD REPORT

Another question challenging higher educators was the decline of liberal arts and its general education offspring, to which the 1945 Harvard Report addressed itself.

A friend told Harvard Pres. James B. Conant, former Harvard chemistry professor, that if he was really interested in salvaging the liberal arts, he would do as much for his committee looking into "The Objectives of a General Education in a Free Society" as he would do for a science research project. Stung by this challenge, Conant got $60,000 for the committee, thus assuring wide publicity and acceptance.

It was Harvard Pres. Charles W. Eliot who turned the tide against prescribed liberal arts by emphasizing electives in 1869. It was said of a Harvard student that he vowed he would graduate by taking only freshman-level elective course, and he did.

Electives, first used at the University of Virginia, 1825, were inevitable as enrollments grew and the curriculum expanded. Rensselaer (1824) and other engineering and scientific schools were aided by post-Civil War technological advances. The Federal Morrill Acts of 1862 and 1890 and resulting growth of land-grant colleges further expanded practical science and popularized arts and humanities. Some felt that the liberally educated, culturally balanced, and morally directed national leadership seemed in danger of being swamped by the culturally shallow, self-serving, emerging mass.

In seeking curriculum balance, Harvard's Pres. A.L. Lowell in 1910 substituted for free electives the idea of course concentration and distribution. In France in World War I, Columbia University English Prof. John Erskine enthralled soldiers with great ideas from great books that dealt with big questions of life, freedom, God, and destiny.

Helping Erskine in his post-World War I Columbia undergraduate great books

honors course was young philosopher Mortimer Adler, soon pulled away by the University of Chicago's new innovative Pres. Robert M. Hutchins. Together they started Chicago's undergraduate great books seminars; turned St. John's College, Annapolis, into a four-year great books college, 1937; and published Great Books of the Western World, 1952. Hutchins and Adler of Chicago, Alexander Meiklejohn at the University of Wisconsin, and others sought to balance American higher education's practical needs with reminders of its western liberal heritage.

The Harvard Report recommendations--that up to 75 percent of high school education be general and that colleges require at least six general courses in the humanities, social sciences, natural sciences, and physical sciences--were adversely affected by Cold War demands. Anti-Vietnam sentiment and late 1960s protests forced into the college curriculum many politically tinged and often transitory courses. Many faculties lost control of students' lives and curriculum direction. The 1960s saw the greatest growth of college enrollment in history.

In 1976, despite adverse trends, Harvard's Arts and Science Dean Henry Rosovsky launched a "Core Curriculum" plan for required undergraduate liberal arts courses. Other institutions followed. But the quest for curriculum balance goes on even while schools are increasingly used as solvers of socio-economic problems and levelers of class and other distinctions. Still unanswered is the question of whether or not a democracy can educate all to be both equal and excellent.

BRUNER

One wonders what happened to the new math, biology, physics, and social studies 20 years after their justification in Jerome S. Bruner's 1960 The Process of Education.

In 1959 at Woods Hole, Mass., 35 scholars sought ways to improve elementary

and secondary school science teaching. University science professors dominated the conference, whose chairman was Harvard psychologist Jerome S. Bruner (b. 1904).

Sputnik in October 1957 shocked Americans into believing that Soviet science and education were better than ours largely because their schools focused on developing talent needed to promote Soviet national purposes. A month after the conference saw publication of James B. Conant's The American High School Today, 1959, which, while retaining the comprehensive high school, called for ability grouping and special testing to identify the academically gifted and give them advanced placement. The year before saw passage of the 1958 National Defense Education Act to improve science, math, foreign languages, and guidance to find and advance the academically able.

World War II and the Cold War had already shifted emphasis in education from the average and below-average student to the gifted. Already launched were the new math by University of Illinois curriculum builders and the new physics developed by Massachusetts Institute of Technology physicist Jerrold R. Zacharias (Physical Science Study Committee). The 1959 Woods Hole conference was convened by the National Academy of Science and financed by such Establishment organizations as the National Science Foundation, the Air Force, the Rand Corporation, the U.S. Office of Education, the Americal Association for the Advance of Science, and the Carnegie Corporation.

What Bruner did in The Process of Education (his report on the Woods Hole conference) was to give philosophical and psychological justification to using the discovery method of learning with the academically talented. The book's theme, "Any subject can be taught effectively in some intellectually honest form to any child at any stage of development," was the 1960s manifesto for curriculum reform.

Bruner held that children's intellectual activity is like that of the adult scholar. Learning the "fundamental structure" of a subject through discovery allowed the learner to solve many problems. When students learned to use a process of inquiry and discovery, general transfer took place from one subject to another (that transfer of learning had been disproved by over half a century of research was somehow put aside).

No one, including Bruner, made clear what the "structure of a discipline" was and meant. But Bruner's thesis sounded good and educators warmed uncritically to his "inquiry-discovery" theory. It pleased the liberal arts professors who liked to compare Bruner's statement that "Intellectual activity is everywhere the same" with Great Books advocate Robert M. Hutchins' statement that "Knowledge is truth. The truth is everywhere the same." It pleased Progressives who saw in Bruner's discovery method something akin to Dewey's How We Think, 1910 (i.e., we think experimentally).

The gestalt theory of Configuration, or a sudden insight into a problem, was an earlier theory somewhat like the inquiry method. But Bruner was more indebted to and borrowed from Swiss-born psychologist Jean Piaget's spiral of learning idea--that as children grow, their concepts also grow, from simple to more complex ideas (Bruner had introduced Piaget's writings to the U.S.).

Bruner's inquiry method moved education further from the child-centered curriculum to a discipline-centered curriculum. But conditions changed and Bruner changed with them. John F. Kennedy's election and assassination, L. B. Johnson as an education-minded and Great Society president, black protest, inner city riots, student involvement in southern desegregation, the rediscovery of poverty in Appalachia, and Indian and Chicano neglect--all changed the sociopolitical picture. America shifted its view and mood. So did Bruner. He quietly agreed with the compassionate views of education writers

Holt, Kohl, Kozol, and others who had taught in slum schools. The new concern was with inner cities, the war on poverty, and the Open Classroom. By 1975, when Bruner left the U.S. to teach at Oxford University, interest in the inquiry method had largely dissipated.

COLEMAN

James S. Coleman's 1966 Equality of Educational Opportunity was the nation's first report card on 10 years of school desegregation.

The then Johns Hopkins University sociologist James S. Coleman was commissioned to report on desegregation as required by the 1964 Civil Rights Act. Two years later the complex and much discussed 1966 Coleman Report appeared. One finding was that low-achieving blacks did better in integrated middle class schools, gaining self confidence from the assured middle class model. The Coleman Report was the authority cited when Federal judges imposed busing to integrate public schools. Coleman was called the architect of court-ordered busing.

Then Coleman's Trends in School Segregation, 1968-73, 1975, based on data from some 12,000 large and small school districts, found that segregation had increased in larger inner cities and between inner cities and surrounding suburbs. Court-ordered urban school integration had caused white flight to the suburbs, thus resegregating the inner cities. Coleman's 1975 evidence was that forced busing was counterproductive; that it produced re-segregation; that the integrating bus could not keep up with white exodus; and that when the integrating bus pursued whites in the suburbs, white children disappeared into private schools. Coleman's 1975 conclusion, that induced integration had driven the races further apart, was hotly debated then and later by busing advocates.

Using the 1966 Coleman Report and other data, Jencks concluded in Inequality, 1972, that quality of schooling had little effect on students' later earnings,

that 78% of later success resulted from luck and personality, that compensatory education (Projects Headstart, Follow Through) was largely a waste, that schools were not an upward escalator for the poor. Socialist Jencks proposed--instead of compensatory schooling--subsidizing poor people's income. But Americans, unwilling to buy his recommendation, also did not accept the thesis that schools made no difference.

KATZ

Like Jencks, Michael B. Katz, Irony of Early School Reform, 1968, radical revisionist interpreter of American educational history, challenged the conventional view (or myth) that schooling benefits the poor and aids upward mobility.

Reflecting the radicalization stemming from American involvement in Vietnam, revisionist writers presented new interpretations of the American past. Anti-establishment, often neo-Marxist and anarchistic, they forced a rethinking of commonly held beliefs.

In this light, Katz, in Irony (published version of his Harvard doctoral dissertation), focused on education reform in mid 19th century Beverly and Lawrence, Mass. He found that middle class reformers and school boards forced compulsory public schools on the community in the face of working class opposition. Poor children went to work early because their families needed the money. Reformers, far from wanting to uplift the laboring poor, promoted public education to maintain law and order, stop crime, check immorality, teach obedience to authority, and provide docile laborers. In Katz's Class, Bureaucracy and Schools, 1973, he wrote that by 1880 the fundamental characteristics of American education, which have not altered, were "free, universal, tax-supported, compulsory, bureaucratic, racist, and class-biased."

Revisionists, contentious with each other as well as hostile to Establishment reform, argue that elites and their allies (professional educators and

middle class reformers) shaped education institutions to protect their own socio-economic dominance and to retain class divisions. The theme of revisionist Joel Spring's The Sorting Machine: National Educational Policy Since 1945, 1975, was that school policy deliberately fitted minorities into low-paid vocations and upper and middle classes into higher education and the professions.

Traditional American education historians were slow to answer revisionist charges that the school was an agent of capitalism, a socio-economic sorter of youth, and advanced the upper and middle classes at the expense of the poor and minorities. Then, in 1975, the prestigious National Academy of Education with a grant from the Ford Foundation invited Diane Ravitch to review revisionists' works (she wrote The Great School Wars: New York City, 1805-1973, 1974). Her report, published by the Academy in 1977 and expanded for Basic Books as The Revisionists Revised: A Critique of the Radical Attack on the Schools, 1978, affirmed conventional beliefs that education makes a difference in life chances and promotes upward socio-economic mobility for the poor.

Many admired Ravitch for taking on the revisionists, believing that they exaggerated and distorted in order to promote radical socio-political change. Others, concerned because education designed to help the disadvantaged has not been successful, are not so sure. The debate is sharpened by economic recession and national uncertainty.

SKINNER

Many who value individuality are apprehensive about the popularity of Behaviorism. B. F. Skinner defended its positive reinforcement, behavior modification, and competency education features in Beyond Freedom and Dignity, 1971.

B. F. Skinner was born in 1904, the year Russian psychologist Ivan Pavlov won the Nobel Prize for describing digestion in dogs. Pavlov found that dogs' salivation could be induced by a stimulus (bell sound when food was given) and, after the connection was repeated, by the bell sound alone. By 1936 when Pavlov died, Skinner had graduated from Hamilton College, NY., and after a try at being a writer, studied psychology at Harvard (after reading J. B. Watson's writings on Behaviorism).

By 1958, when J. B. Watson died (Watson had written: give me a dozen babies and a controlled environment to raise them in and I will make them into anything I want), Skinner had taught psychology at Minnesota and Indiana University, returned to teach at Harvard, and gained some notoriety with the Skinner box (a plastic-enclosed controlled-environment crib for his daughter). He had experimented with pigeon-guided war missiles early in World War II, and written his first important book on animal learning, The Behavior of Organisms, 1938, which first mentioned "operant conditioning"; i.e., introducing an enjoyable effect which invites repetition and hence reinforces a particular behavior. In Walden Two (his 1948 novel about an environmentally conditioned utopia) a visitor is attracted by the seeming contentment of the inhabitants but repelled by their voluntary submission to reinforcements supplied by well-intentioned managers. The creator of the planned community tells the visitor, "I remember the rage I used to feel when a prediction went awry. I could have shouted at the subject of my experiments 'Behave, damn you! Behave as you ought.'"

With Skinner and Beyond Freedom and Dignity featured in Time's September 20, 1971, cover story, the controversy over controlled behavior entered the public arena. Skinner said that since we can no longer afford freedom (i.e., rugged individualism), we must replace it with control over human conduct and culture; that society and its institutions are already under control; that freedom is really an illusion; that we must motivate people to stop polluting, overpopulating, rioting, and making war.

Critics said that Skinner's proposal for a controlled society was unworkable and evil in the U.S. context and that brainwashing on a national scale was impossible (too many bright people would resist). Conditioning by reinforcement might work with some people and be beneficial in certain learning situation (in 1954 Skinner made more practical the teaching machine- first developed by Sydney L. Pressey), but ultimately it destroyed by removing self-determination. Choice is all-important, said humanistic psychologist and Skinner critic Carl Rogers. The late novelist Arthur Koestler labeled Behaviorism "a monumental triviality" which ignores consciousness, mind, imagination, and purpose. Existential psychoanalyst Rollo May said Skinner's system allowed no place for the rebel.

Why has Behaviorism been popular? It was a pragmatic expedient to meet the barrage of forces affecting American education: student population explosion, rapid increase in knowledge, and sudden Great Society education money. There quickly appeared education systems analysis, cost accounting, teaching machines, computers and other technical devices to speed and deepen learning, and performance contracting (paying private firms to teach skills). The crisis that followed Vietnam and the end of Great Society programs included oil shortage, energy crisis, stagflation, and taxpayers' revolt. A falling birthrate and declining enrollment coincided with the faltering economy and rising unemployment, leading to

competency-based education. Teaching and learning objectives were state-mandated. Low cost results counted more than individual differences. Behavior modification was in. Skinnerian techniques were in vogue. Environmentalists seemed in command.

CONCLUSION

These education books began with a highly moral and nationalistic tone (McGuffey Readers), saw the rise of professional education (Flexner), the testing and sorting movement (Terman), the promise of Progressive Education (Dewey), the challenge of reconstructing society (Counts), the search for curriculum balance (Harvard Report), vast curriculum reform (Bruner), a monitoring of desegregation (Coleman), a denial that schooling assures upward mobility (Katz), and the advocacy of controlled behavior (Skinner). Other education works were also important in these turbulent years. But these ten books, most shook and shaped American schools.